

Notice of Allowability

Application No.

10/823,749

Examiner

Tran N. Nguyen

Applicant(s)

JACK ET AL.

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/23/06.
2. ☒ The allowed claim(s) is/are 2-5 and 14-16.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

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Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Examiner's Amendment

1. An Examiner's Amendment to the record appears below. Should the changes and/or additions be unacceptable to applicants, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it must be submitted no later than the payment of the Issue Fee.

Please change the following:

In the claim:

Cancel claims 6-10 and 17-19 (which is a non-elected invention. See Election/Restriction as of 8/31/05).

Allowable Subject Matter

Claims 2-5 and 14-16 are allowed.

Reason for Allowability

The following is an examiner's statement of reasons for allowance: in combination with other limitations recited in the claims, the primary reason for the allowance is the including the following inventive features of an axial flow electrical machine, i.e., an axial air gap electrical machine having a core with at least a subset of said plurality of stacked, ring shaped sheets of soft magnetic material includes a plurality of first tooth engaging portions and a plurality of second tooth engaging portions, a first tooth engaging portion and a second tooth engaging portion being arranged to at least partially define a tooth opening, and wherein each sheet of soft magnetic material in at least a subset of said plurality of stacked, ring shaped sheets of soft

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magnetic material further includes a plurality of first outer closing portions and a plurality of second outer closing portions, a first outer closing portion and a second outer closing portion being arranged to face each other between an outer perimeter of said sheet of soft magnetic material and said tooth opening, and wherein said plurality of teeth are made of soft magnetic material and each tooth of said plurality of teeth is arranged in a tooth opening and is extending from said coreback in a direction essentially parallel with an axial direction of said coreback.

Comparing to the prior-art of the record, the most relevant ref is US Publication 2005/0073213 of Naito et al. Naito discloses a axial air gap machine having a core with tooth openings and plurality of teeth is arranged in tooth openings and is extending from said coreback in a direction essentially parallel with an axial direction of said coreback, wherein the core back having a slit 36 constituting an insulating layer is formed at the stator yoke 23 on an outer peripheral side of a press fit portion of a root portion of each tooth 24 and therefore, an induced current is blocked and substantially, the induced current does not flow. That is, the slit 36 constitutes a resistance portion against the induced current and the induced current is blocked or reduced. This differs from the claimed invention of the a plurality of first tooth engaging portions and a plurality of second tooth engaging portions, a first tooth engaging portion and a second tooth engaging portion being arranged to at least partially define a tooth opening, and a first outer closing portion and a second outer closing portion being arranged to face each other between an outer perimeter of said sheet of soft magnetic material and said tooth opening. Also, Shen et al (PgPub US 2003/0127938) and Hasegawa et al (USP 6566778) discloses divided core segment with engaging portion to assemble the segmented core, but fail to disclose that the core segments form tooth opening slot for accommodating axial extended teeth.

Thus, none of the prior art references of the record, either stand alone or in combination, has taught or suggest the above-mentioned features in combination with other limitations recited in the claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

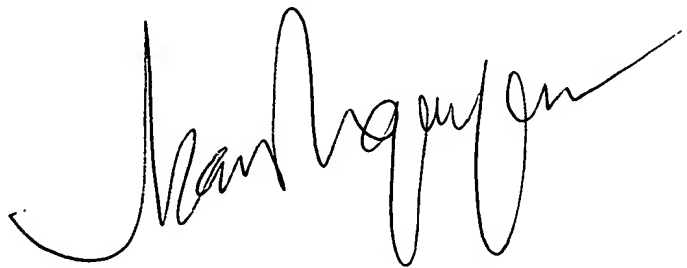
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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tran N. Nguyen whose telephone number is (571) 272-2030. The examiner can normally be reached on M-F 7:00AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (571)-272-2045. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Tran N. Nguyen', with a long horizontal flourish extending to the right.

Tran N. Nguyen
Primary Examiner
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